

# PATENT ABSTRACTS OF JAPAN

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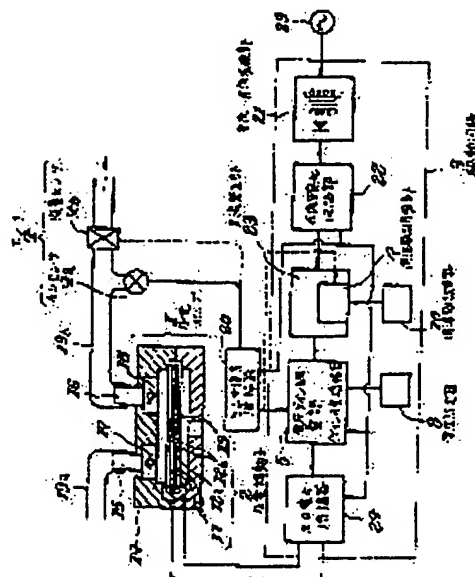
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## (54) DRIVING METHOD FOR PIEZOELECTRIC PUMP

### (57)Abstract:

**PURPOSE:** To compensate the deterioration of a piezoelectric vibration chip automatically by inputting the detected values such as the pressure of fluid delivered from a piezoelectric pump to a voltage gain adjusting section in a drive circuit then adjusting such that the difference against a setting value is eliminated.

**CONSTITUTION:** When a piezoelectric vibration chip 2 is vibrated up and down by applying A.C. output through a drive circuit 3, a piezoelectric pump 1 delivers the fluid sucked through a suction valve 17 through a delivery valve 18. Here, the pressure of the fluid delivered from the piezoelectric pump 1 is detected by means of a pressure sensor 4a, then the output therefrom is fed through an amplifier 20 to the voltage gain adjusting section 5 in the drive circuit 3 so as to be compared with a value set by means of a voltage setter 8. The adjusting section 5 functions to eliminate the difference against the setting value, and the driving of the piezoelectric vibration chip 2 is controlled in accordance with the output from said adjusting section 5 through an output power amplifier 24. When the flow is controlled automatically, said adjusting is performed in accordance with the output from a flow sensor 4b.



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